CHAPTER 2

SEARCH AND RESCUE OPERATIONS

(1) COAST GUARD MARITIME SEARCH AND RESCUE ASSISTANCE POLICY

A search and rescue (SAR) case is considered non-distress when there is no threat to life and no reasonably foreseeable threat to life. In such cases, the Coast Guard will assist by notifying private towing or salvage providers with which the vessel requesting assistance has a contract or subscription, or notify Coast Guard Auxiliary.

If assistance from a specific firm is not requested or available, the Coast Guard will advise the mariner that a Marine Assistance Request Broadcast (MARB) can be made to determine if a commercial assistance firm is available to come to their assistance. If no response to the MARB is heard in a reasonable period of time, the Coast Guard may respond. The Coast Guard Operations Center handling the case will decide what constitutes a distress and a reasonable response time for the circumstance at hand. Coast Guard resources will not normally provide immediate assistance in non-distress situations where alternate assistance is available. A Coast Guard resource may assist in a non-distress situation when no higher priority missions exist and no other capable resource is reasonably available.

The decision to accept or reject an offer of assistance is made by the vessel operator. The vessel operator may also elect to contact commercial assistance independently. The operator of the vessel in need of assistance should be sure to determine the towing/salvage firm's capabilities, procedures, fees, etc. The operator of the vessel may also choose to arrange assistance from other sources such as a "Good Samaritan" passerby.

If a Coast Guard unit is already on scene with a non-distress case, they will respond only if higher priority operations do not exist and alternative providers cannot respond in a reasonable time. If and when the Coast Guard responds to a non-distress situation, it will tow a vessel only to the nearest safe mooring. Arrangements for further assistance, if needed, will be the responsibility of the vessel's operator. If persons remain on board the vessel requesting assistance and no telephone facilities are available, the Coast Guard will continue to monitor the progress of the case by radio and will help facilitate notification of commercial firms as if the Coast Guard were receiving initial notification.

The Coast Guard will not normally release a tow already in progress to a commercial firm unless it can be done safely and alternative assistance is desired.

(2) REQUEST FOR MEDICAL ADVICE AND MEDICAL EVACUATION

Free medical advice is made possible through the cooperation of government and commercial radio stations whose operators receive messages from ships at sea and radio medical advice back to ships. Requests for medical advice or for personnel evacuation by vessels not using coastal radio stations should be made to the nearest Coast Guard facility.

The final decision for medical evacuation (MEDEVAC) is made by the Coast Guard Rescue Coordination Center and is based on an evaluation of the symptoms by a military Flight Surgeon. There are times when evacuation may be more dangerous to the patient than leaving the patient aboard until arrival at the next port.

(3) PROCEDURES AND SIGNALS BETWEEN AIRCRAFT AND SURFACE CRAFT FOR DIRECTING SURFACE CRAFT TO THE SCENE OF DISTRESS

The following procedures performed in any sequence by an aircraft means the aircraft is directing a surface craft towards a vessel in distress:

a) **Circling** the surface craft at least once.

b) **Crossing** the projected course of the surface craft ahead at low altitude, opening and closing the throttle, or changing the propeller pitch.

c) **Heading** in the direction in which the surface craft is directed. The surface craft should hoist the international code flag CHARLIE, or use any other signaling means available to indicate its intention to comply.

d) **Crossing** the wake of the surface craft close astern at low altitude while opening and closing the throttle or changing the propeller pitch means the assistance of the surface craft is no longer needed.

(4) SHIP ABANDONMENT AND HYPOTHERMIA

Decide on and discuss with everyone on board a survival plan before getting underway. Make sure everyone knows how to operate emergency equipment and how to perform during a vessel casualty. This will dramatically increase your chances for survival and of a successful rescue. Below are actions to be taken if you must abandon ship.

a) Put on as much warm clothing as possible, making sure to cover head, neck, hands and feet.

b) If an immersion (exposure) suit is available put it on over the warm clothing.

c) If the immersion (exposure) suit does not have inherent flotation, put on a lifejacket and secure it correctly.

d) All persons who are prone to seasickness should, before or immediately after boarding the survival craft, take preventative tablets or medicine in a dose recommended by the manufacturer. The incapacitation caused by seasickness interferes with your survival chances; the vomiting removes precious body fluid while seasickness in general makes you more prone to hypothermia.

e) Avoid entering the water if possible. If davit-launched survival craft are not available, use over the side ladders, or lower yourself by a rope or fire hose.

f) NEVER jump from higher than 5 meters (16.4 feet) into the water unless it is your last resort. Try to minimize the shock of sudden cold immersion. Rather than jumping into the water, try to lower yourself gradually. A sudden plunge into the cold water can cause rapid death. An uncontrollable rise in your breathing rate may result in an intake of water into the lungs. If it is necessary to jump into the water, keep your elbows at your sides and cover your nose and mouth with one hand while holding the wrist or elbow firmly with the other hand.

g) Once in the water, orient yourself and try to locate the ship, lifeboats, life rafts, other survivors, or other floating objects. Button up your clothing if you were unable to do so before entering the water. In cold water you may experience violent shivering and great pain. These are natural body reflexes that are not dangerous. You should take necessary actions as quickly as possible before you lose full use of your hands (button up clothing, turn on signal lights, locate whistle, etc.).

h) While afloat in the water, do not attempt to swim unless it is to reach a nearby craft, a fellow survivor, or a floating object, on which you can lean or climb. Unnecessary swimming will "pump" out any warm water between your body and the layers of clothing, thereby increasing the rate heat loss from the inner core to the outer layer of the body. It is most important to remain as still as possible in the water, however painful it may be.

i) The body position you assume in the water is also very important in conserving heat. Float as still as possible with your legs together, elbows close to your side and arms folded across the front of your lifejacket. This position minimizes the exposure of the body surface to the cold water. Try to keep your head and neck out of the water. Another heat conserving position is to huddle closely to one or more persons afloat, making as much body contact as possible. You must be wearing a life vest to be able to hold these positions in the water.

j) Try to board a lifeboat, raft, or other floating platform or object as soon as possible in order to shorten your immersion time (you lose body heat 25 times faster in water than in air). Since the effectiveness of your insulation is seriously reduced by water soaking, you must try to shield yourself from the wind to avoid a wind-chill effect (convection cooling). If you manage to climb aboard a lifeboat, shielding can be accomplished with the aid of a canvas cover or tarpaulin, or an unused garment. Huddling close to the other occupants of the lifeboat or raft will also conserve body heat.

k) The head and the neck are high heat loss areas and must be kept above the water. If you are not wearing a life vest, tread the water only as much as necessary to keep your head out of the water.

HOW HYPOTHERMIA AFFECTS ADULTS		
Water Temperature Degrees Fahrenheit	Exhaustion or Unconsciousness	Expected time of Survival
32.5	Under 15 min	Under 15 to 45 min
32.5 to 40	15 to 30 min	30 to 90 min
40 to 50	30 to 60 min	1 to 3 hrs
50 to 60	1 to 2 hrs	1 to 6 hrs
60 to 70	2 to 7 hrs	2 to 40 hrs
70 to 80	2 to 12 hrs	3 hrs to Indefinite
over 80	Indefinite	Indefinite